Department of Veterans Affairs Genomic Medicine Program Advisory Committee Meeting (GMPAC) November 20, 2008

EXECUTIVE SUMMARY

The seventh VA Genomic Medicine Program Advisory Committee (GMPAC) meeting was held on November 20, 2008 in the Oasis Room of the Almas Conference Center in Washington, DC.

The meeting was opened by Dr. Wayne Grody from the University of California at Los Angeles who welcomed the members of the committee, invited speakers, and others. The members present were Ms. Christine Burtt of CQB & Associates, Dr. Alan Guttmacher of the National Human Genome Research Institute, Dr. Geoffrey Ginsburg from Duke University; Dr. Muin Khoury of the Centers for Disease Control; Dr. Daniel Masys from Vanderbilt University; Dr. Annette Taylor of Kimball Genetics; Dr. Michael Watson from the American College of Medical Genetics.

A program update was given by Dr. Ron Pryzgodzki, Associate Director for Genomics Medicine. He reported that a manuscript of the survey of veterans' attitudes about genomic medicine was being written for peer-review publication. There were several presentations by invited speakers, focusing on Health education, Informatics, and the latest Genome-wide association studies (GWAS).

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An update on the Genomic Medicine program within the VHA was delivered by Dr. Robert Jesse, Chief Consultant of the medical surgical services at the VA. A main point of the presentation was the VHA goal of a longitudinal and prevention model of health rather than an acute care model. The genomic medicine program will help in the paradigm shift to more preventative care, but the cost and perceived costs remain big unknowns. It was suggested that the main focus of the program would continue to be on education of both primary healthcare providers and the patients.

Discussion following Dr. Jesse's presentation included the topic of a patient's sharing their family health history with dependants. Also, there was discussion that due to its closed system, the VA is in a good position to take advantage of "actionable" findings from GWAS and other genetic studies.

Web-based Educational Tool for Genetics of Colorectal Cancer: VA/NCHPEG collaboration

An update on the National Coalition for Health Professionals Education in Genetics (NCHPEG) was given by Ms. Holly Peay, Project Manager for NCHPEG, who stated that the mission of NCHPEG is to promote health professional education in genetics to improve the healthcare of all Americans. Potential barriers to overcome in the education process were discussed, including misconceptions about genetics, disconnect between basic science and clinical training, inadequate histories, and lack of practice guidelines.

were discussed, including, getting people to work across disciplines, the dearth of informaticians, cost and perceived cost.

The presentation was concluded by Dr. Leonard D'Avolio, who discussed the particulars of the translational knowledge base implementation. Implementation would be in phases, starting with visioning the architecture and strategy of the plan, and integration of research data (in progress) followed by integration of genomic data, specimen data, and electronic medical record data, concluding with data and knowledge integration back into clinical care.

The main discussion points that followed this presentation were about the importance of increasing the amount of information through gene expression studies and metabolomics in addition to the GWAS. A discussion about who was going to be undertaking all the data analysis was begun, with the options of a centralized process vs. each institution for itself. Another discussion about the translational integration of all the proposed data into tools for patient care was raised, followed by a reiteration that this is a starting point for analysis, with patient care applications be on-line in the future. The conclusion of the discussion was that meta-analysis and data mining of the type proposed by MAVERIC serve useful purposes and are cost-effective.

<u>Presentation on the Veterans Informatics, Information, and Computing Infrastructure (VINCI)</u>

An introduction to VINCI, a system for clinical informatics representing 158 VA health centers was given by Dr. Jonathon Nebeker, Associate Professor and GRECC Investigator at the Salt Lake City VA Medical Center and University of Utah. The presentation was an overview of the mission of VINCI, which is to serve CHIR (Center for Healthcare Informatics Research) and the greater VA community by providing IT resources in a manner that minimizes risk of data loss and improves overall access to the data. VINCI is being created by on an integrated research database by integrating existing databases (both corporate and research databases) containing patient information like vitals, surgery, pharmacy, consults, labs, and radiology procedures and integrating new data, like genetic information.

Presentation on the Genetic Epidemiology of ALS in Veterans

An update on the GWAS study of ALS in veterans undertaken by the GENEVA (Genes and Environmental Exposures in Veterans with ALS) program was given by Dr. Silke Shmidt, Principal Investigator at the Durham VA Medical Center and Associate Professor of Medical Genetics at Duke University. The symptoms of ALS, relationship of the disease to genetics, the environment, and the genetic by environment interactions were presented. It was determined that the GENEVA program's national registry for veterans with ALS and the concurrent DNA collection will be one of the largest collections of ALS patient information coordinated by a single site.

now operational. It was noted that disease susceptibility studies are going to be much more long-range projects.

The final comments from the committee were reiterations about the importance of linking all the genetic data coming on line with the medical records already available, and the possibility of reusing genetic material that has already been gathered.

The next GMPAC meeting is being planned for April 2009.

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